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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/716,717	11/20/2000	James R. Hansen	11333-013001	9578
26161	7590	02/16/2005	EXAMINER	
FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110			DENNISON, JERRY B	
			ART UNIT	PAPER NUMBER
			2143	

DATE MAILED: 02/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/716,717

Applicant(s)

HANSEN ET AL.

Examiner

J. Bret Dennison

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 and 49-52 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-46 and 49-52 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/12/04 11/17/04.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Action is in response to Amendment of Application Number 09/716,717 received on 04 October 2004.
2. Claims 1-46 and 49-52 are presented for examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-46 and 49-52 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure, which is not enabling. Applicant's specification lacks the proper teachings that is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). Applicant claims storing an address of a remote computer, the address comprising a known address that is predetermined and that is not obtained via a discovery process. Applicant only implies on page 7, lines 10-15, that the automated device recordation and registration process includes a feature transmission process for transmitting feature information to a remote computer which resides at a known address on a distributed computing network. However, Applicant claims that this known address is predetermined and is not obtained via a discovery process. Thus Applicant has not provided within the specification the details needed in order to utilize obtaining the address of the remote computer without a discovery process. It would require undue experimentation for one of ordinary skill in the networking art at the time

the invention was made to determine the details of storing an address that is predetermined and not obtained via a discovery process.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-46 and 49-52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claims 1 and 50 recite the negative limitation "*storing an address of the remote computer, the address comprising a known address that is predetermined and that is not obtained via a discovery process.*" Examiner suggests explaining how the address is obtained or predetermined rather than how it is not obtained. Examiner will interpret the limitation as follows: "storing an address of the remote computer, the address comprising a known address". Appropriate correction is required.

5. Claims 30, 49, 51, and 52 recite the negative limitation "*store an address of the remote computer, the address comprising a known address that is predetermined and that is not obtained via a discovery process.*" Examiner suggests explaining how the address is obtained or predetermined rather than how it is not obtained. Examiner will interpret the limitation as follows: "storing an address of the remote computer, the address comprising a known address". Appropriate correction is required.

6. Claims 1, 30, 49, 50, 51, and 52 recite, "using a self-describing computer language." It is unclear to Examiner what "self-describing computer language" means.

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Examiner was unable to find where the Specification goes into detail about what is meant by this limitation except for providing an example, XML. This does not provide enough information to exclude any other computer language. Examiner will interpret "self-describing computer language" as any computer language. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-46 and 49-52 are rejected under 35 U.S.C. 102(e) as being anticipated by O'Sullivan et al. (U.S. Patent Number 6,560,656) hereinafter referred to by O'Sullivan.

7. Regarding claims 1, 30, and 49-52, O'Sullivan discloses a method performed by a device to register the device with a remote computer, the method comprising:

storing an address of the remote computer, the address comprising a known address (O'Sullivan, col. 2, lines 55-60, O'Sullivan discloses a reference to an entity for registration with the system);

detecting feature information associated with the device, the feature information comprising device-specific information (O'Sullivan, col. 6, lines 47-48); and

registering the device with the remote computer by transmitting the feature information to the remote computer at the known address using a self-describing computer language(O'Sullivan, col. 6, lines 5, 10-15, 50-55).

8. Regarding claims 3 and 32, O'Sullivan discloses all of the features of the invention substantially as claimed, as described in claims 1 and 30, including wherein the known address corresponds to a Uniform Resource Locator (O'Sullivan, col. 7, lines 33-38).

9. Regarding claim 5 and 34, O'Sullivan discloses all of the features of the invention substantially as claimed, as described in claims 1 and 30, including wherein the device-specific information comprises a device type and a device instance (O'Sullivan, col. 6, lines 40-45).

10. Regarding claims 7 and 36, O'Sullivan discloses all of the features of the invention substantially as claimed, as described in claims 1 and 30, including wherein the remote computer comprises a database for storing the feature information (O'Sullivan, col. 6, lines 35-45).

11. Regarding claims 8 and 37, O'Sullivan discloses all of the features of the invention substantially as claimed, as described in claims 7 and 36, including wherein determining comprises examining the database to determine if the device was previously registered with the remote computer (O'Sullivan, col. 6, lines 47-55).

12. Regarding claim 9, O'Sullivan discloses all of the features of the invention substantially as claimed, as described in claim 7, including wherein said remote computer resides on a distributed computing network and the feature information is transmitted to the remote computer via the distributed computing network (O'Sullivan, col. 5, lines 55-67).

13. Regarding claim 10, O'Sullivan discloses all of the features of the invention substantially as claimed, as described in claim 9, including wherein the distributed computing network comprises the Internet (O'Sullivan, col. 5, line 62).

Claim 1-46 and 49-52 are rejected under 35 U.S.C. 102(e) as being anticipated by Li et al. (U.S. Patent Number 6,012,088).

14. Regarding claims 1, 30, and 49-52, Li discloses a method performed by a device to register the device with a remote computer, the method comprising: storing an address of the remote computer, the address comprising a known address; detecting feature information associated with the device, the feature information comprising device-specific information; and registering the device with the remote computer by

transmitting the feature information to the remote computer at the known address using a self-describing computer language (Li, col. 3, lines 20-40, Li discloses an automatic configuration process to handle the task of configuring the Internet access device where after the customer enters a registration number and a telephone number, the Internet access device connects to the Internet through an ISP to a configuration server containing customer site specific configuration data and therefore must have a known URL of the configuration server).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 4, 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Sullivan in view of Singer et al. (U.S. Patent Number 6,834,298).

15. Regarding claims 2 and 31, O'Sullivan teaches the limitations, substantially as claimed, as described in claims 1 and 30. However, O'Sullivan does not explicitly state wherein the self-describing computer language comprises extensible Markup Language (XML). In an analogous art Singer discloses a system and method for network auto-discovery and configuration where devices sends their hardware and software

descriptions to the Auto-Discovery Service using XML format (Singer, col. 6, lines 1-8).

Therefore, it would have been obvious to one in the ordinary skill in the art at the time of the invention to incorporate the auto-discovery and configuration system off Singer into O'Sullivan in order to provide for location and monitoring of components without having to manually configure each machine (Singer, col. 1, lines 20-30).

16. Regarding claims 4 and 33, O'Sullivan teaches the limitations of claims 1 and 30. However, O'Sullivan does not explicitly state wherein the known address corresponds to a Transmission Control Protocol/Internet Protocol (TCP/IP) address. In an analogous art Singer discloses a system and method for network auto-discovery and configuration using IP addresses (Singer, col. 5, line 50 through col. 6, line 25). Therefore, it would have been obvious to one in the ordinary skill in the art at the time of the invention to incorporate the auto-discovery and configuration system off Singer into O'Sullivan in order to provide for location and monitoring of components without having to manually configure each machine (Singer, col. 1, lines 20-30).

Claims 6 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Sullivan in view of Kondo et al. (U.S. Patent Number 5,586,254) hereinafter referred to by Kondo.

17. Regarding claims 6 and 35, O'Sullivan discloses the features, substantially as claimed, as described in claims 5 and 34. O'Sullivan also teaches that a lookup service,

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located in the remote computer's memory, contains an object/instance for each service supplied by each device. However, O'Sullivan does not specifically state wherein said device type comprises a model number of the device and the device instance is a serial number.

In an analogous art of networking, Kondo teaches a system for managing and operating network devices wherein the attributes of the devices to be managed include model number and serial number (Kondo, col.10, lines 20-33).

Therefore, it would have been obvious to one in the ordinary skill in the art at the time of the invention to combine the system of O'Sullivan with the system of Kondo to provide detailed information about the managed network devices for the benefit of reducing the work of the network manager (col. 6, lines 9-10).

Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Sullivan in view of Rezvani et al. (U.S. Patent Number 6,686,838).

18. Regarding claims 11-13, O'Sullivan teaches the limitations, substantially as claimed, as described in claim 9. O'Sullivan does not explicitly state using direct, dial-up, or wireless network connections. In an analogous art of networking, Rezvani teaches automatic registration of devices with network connections through direct, wired, and wireless connections (col. 4, lines 15-55). Therefore it would have been obvious for one in the ordinary skill in the art at the time of the invention to incorporate the communications networks of Rezvani into O'Sullivan to provide improved systems

and methods for remotely registering devices and also having monitoring modules that communicate with remote sites (Rezvani, col. 1, lines 30-45).

Claims 14-17 and 38-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Sullivan in view of Revashetti et al. (U.S. Patent Number 6,230,199).

19. Regarding claims 14-17 and 38-41, O'Sullivan, in combination with what is well known in the art, teaches the limitations of claims 7 and 36, including wherein said device includes embedded software which controls said device's functionality (O'Sullivan, col. 7, lines 25-30). However, O'Sullivan does not disclose wherein said embedded software has a specific version identifier associated with it, the database stores a software update, having a specific version identifier, and wherein software update is the newest version available, comparing said version identifier to the version identifier of embedded software to determine if an update is needed, and updating embedded software residing on device. In an analogous art of networking Revashetti discloses active marketing based on client computer configurations that contains an update information database that comprises new software including version updates, which are compared to the software installed on client computers and determines if an update is needed and updates the version (Revashetti, col. 2, lines 50-67). Therefore it would have been obvious to one in the ordinary skill in the art at the time of the invention to incorporate the software update of Revashetti with O'Sullivan to provide a system for the marketing of products that are not yet detected on the user's computer,

based upon a combination of the absence or the presence of hardware peripherals and/or software on or connected to the client computer (col. 3, lines 1-10).

Claims 18-21, 24-26, and 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Sullivan in view of Iggulden (U.S. Patent Number 6,415,023) hereinafter referred by Iggulden.

20. Regarding claims 18 and 42, O'Sullivan discloses the features of the invention as described in claims 7 and 30. O'Sullivan also teaches a lookup service containing an object for each service from each device. However, O'Sullivan does not disclose the objects containing feature information comprising system information concerning the location, ownership, and configuration of the device.

In an analogous art to networking, Iggulden discloses a method for setting features of a device where the features include system information including location, ownership, and configuration of said device (col. 4, lines 40-55).

Therefore it would have been obvious to one in the ordinary skill in the art at the time of the invention to combine the system of O'Sullivan with Iggulden to enable the system to collect information concerning consumer's use of product features which can be useful in product marketing and new product design (Iggulden, col. 4, lines 40-45).

21. Regarding claims 19 and 43, O'Sullivan and Iggulden teach the limitations of claims 18 and 42, further comprising a system information interface for allowing the

owner of said device to configure said system information (Iggulden, col. 4, lines 40-55).

See above for motivation.

22. Regarding claim 20, O'Sullivan and Iggulden teach the limitations of claims 19, including wherein said device comprises a HyperText Transfer Protocol (HTTP) device web Server and the system information interface comprises a software application residing on the device web server, editing the system by accessing the system information interface via a remote web client (Iggulden, col. 3, line 62 through col. 4, line 5). See above for motivation.

23. Regarding claims 21 and 44, O'Sullivan and Iggulden teach the limitations of claims 19 and 43, further comprising transmitting the system information to the remote computer using the self-describing computer language (O'Sullivan, col. 6, lines 5, 10-15, 50-55).

24. Regarding claim 24, O'Sullivan teaches the limitations of claim 7. However, O'Sullivan does not disclose wherein the device includes a device web client and the remote computer comprises a HyperText Transfer Protocol (HTTP) remote web server.

In an analogous art, Iggulden teaches a web server connected to devices through the web (Iggulden col. 3, lines 60 through col. 4, line 5). See above for motivation.

25. Regarding claim 25, O'Sullivan and Iggulden teach the limitations of claim 24, including wherein the remote computer comprises an application logic to interface the remote web server and the database (O'Sullivan col. 6, lines 40-55). See above for motivation.

26. Regarding claim 26, O'Sullivan and Iggulden teach the limitations of claim 25, including wherein the device web client transmits the feature information from the device to the remote web server, and the application logic transmits the feature information from the remote web server to the database (O'Sullivan, col. 6, lines 45-55). See above for motivation.

Claims 22, 23, 45, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Sullivan in view of Iggulden as applied to claims 19 and 43 above, and further in view of Revashetti et al. (U.S. Patent Number 6,230,199).

27. Regarding claims 22-23 and 45-46, O'Sullivan and Iggulden teach the limitations of claims 19 and 43. However, O'Sullivan and Iggulden do not disclose comparing system information on the remote computer to system information on the device to determine if the database on the remote computer needs to be updated with the system information on the device. In an analogous art of networking Revashetti discloses active marketing based on client computer configurations that contains an update information database that comprises new software including version updates, which are

compared to the software installed on client computers and determines if an update is needed and updates the version (Revashetti, col. 2, lines 50-67). Therefore it would have been obvious to one in the ordinary skill in the art at the time of the invention to incorporate the software update of Revashetti with O'Sullivan and Iggulden to provide a system for the marketing of products that are not yet detected on the user's computer, based upon a combination of the absence or the presence of hardware peripherals and/or software on or connected to the client computer (col. 3, lines 1-10).

Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Sullivan in view of Narasimhan et al. (U.S. Patent Number 6,446,192).

28. Regarding claims 27-29 O'Sullivan teaches the limitations of claim 1. However, O'Sullivan does not disclose wherein the device comprises a device mail client and the remote computer comprises a Simple Mail Transfer Protocol (SMTP) remote mail server, wherein the remote computer comprises application logic to interface the remote mail server and the database, and wherein the device mail client transmits the feature information from the device to the remote mail server, and the application logic transmits the feature information from the remote mail server to the database. In an analogous art of networking, Narasimhan discloses a remote monitoring and control of equipment over computer networks using an interfacing chip wherein devices can use e-mail transmission for various purposes including transmitting device status to a database server which collects and interprets the data in the message and stores it into

a database (Narasimhan, col. 18, lines 1-15). Therefore it would have been obvious for one in the ordinary skill in the art at the time of the invention to incorporate Narasimhan into O'Sullivan to provide an improved apparatus and method for providing remote controlling and monitoring of a device over a computer network, reducing the complexity and size of remote monitoring systems (Narasimhan, col. 2, lines 10-20).

Response to Arguments

29. Applicant's arguments filed 04 October 2004 have been fully considered but they are not persuasive. Applicant's arguments are deemed moot in view of the following new grounds of rejection as explained here below, necessitated by Applicant's substantial amendment (i.e., *by adding new limitations to independent claim 1, which will require further search and consideration*) to the claims which significantly affected the scope thereof.

30. Applicant's arguments with respect to claim 1 have been fully considered but they are not persuasive. Applicant's arguments include the failure of previously applied art to expressly disclose the teachings of storing an address of a remote computer, where the address comprises a known address that is predetermined and that is not obtained via a discovery process, and registering the device using the known address [see Applicant's Response, filed 04 October 2004, pages 15-16]. As described above, Applicant only implies on page 7, lines 10-15, that the automated device recordation and registration process includes a feature transmission process for transmitting feature information to a remote computer which resides at a known address on a distributed

computing network. However, Applicant claims that this known address is predetermined and is not obtained via a discovery process. Thus Applicant has not provided within the specification the details needed in order to utilize obtaining the address of the remote computer without a discovery process. It would require undue experimentation for one of ordinary skill in the networking art at the time the invention was made to determine the details of storing an address that is predetermined and not obtained via a discovery process.

31. Applicant's arguments with respect to claim 1 include the failure of previously applied art to expressly disclose the teachings of communicating to a known address to register [see Applicant's Response, filed 04 October 2004, pages 16]. It is evident from the mappings found in the above rejection that O'Sullivan clearly teaches this limitation. Applicant points out that O'Sullivan teaches a process where a discovery server 314 passes a reference to a lookup service to the device, which enables the device to register itself with a Djinn (O'Sullivan, col. 6, line 47) [see Applicant's Response, filed 04 October 2004, pages 16, first paragraph].

32. Applicant's arguments with respect to claim 1 include the failure of previously applied art to expressly disclose the teachings of transmitting feature information using a self describing language [see Applicant's Response, filed 04 October 2004, pages 17]. Examiner was unable to find where the Specification goes into detail about what is meant by this limitation except for providing an example, XML. This does not provide enough information to exclude any other computer language. Therefore, since O'Sullivan does teach transmitting feature information in a computer language, it is

evident from the mappings found in the above rejection that O'Sullivan discloses the teaching of transmitting feature information using a self describing language. Further, it is clear from the numerous teachings (previously and currently cited) that the provision for using a "self describing computer language" as defined by the specification was widely implemented in the networking art.

33. Thus, Applicant's arguments drawn toward distinction of the claimed invention and the prior art teachings on this point are not considered persuasive. It is also clear to the Examiner that O'Sullivan clearly teaches the independent claims of the Applicant's claimed invention.

34. Applicant's arguments with respect to claim 1 are deemed moot in view of the following new grounds of rejection, necessitated by Applicant's amendment to the claims, which significantly affected the scope thereof.

35. Furthermore, as it is Applicant's right to continue to claim as broadly as possible their invention, it is also the Examiner's right to continue to interpret the claim language as broadly as possible. It is the Examiner's position that the detailed functionality that allows for Applicant's invention to overcome the prior art used in the rejection, fails to differentiate in detail how these features are unique. As it is extremely well known in the networking art as already shown by O'Sullivan as well as other prior arts of records disclosed automatic device registration is taught as well as other claimed features of Applicant's invention. By the rejection above, the applicant must submit amendments to the claims in order to distinguish over the prior art use in the rejection that discloses different features of Applicant's claimed invention.

36. It is the Examiner's position that Applicant has not yet submitted claims drawn to limitations, which define the operation and apparatus of Applicant's disclosed invention in manner, which distinguishes over the prior art.

37. Failure for Applicant to significantly narrow definition/scope of the claims and supply arguments commensurate in scope with the claims implies the Applicant intends broad interpretation be given to the claims. The Examiner has interpreted the claims with scope parallel to the Applicant in the response and reiterates the need for the Applicant to more clearly and distinctly define the claimed invention.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

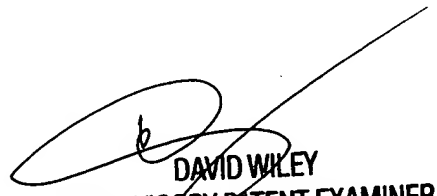
Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Bret Dennison whose telephone number is (571)272-3910. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (703)308-5221. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



J. Bret Dennison
Patent Examiner
Art Unit 2143



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